

Technical Bulletin #22:

Iron – An Essential Mineral for Strong Bodies

Why does your body need iron?

- It strengthens the blood
- It builds muscles and brain cells
- It helps the body to work properly

If you don't get enough iron, what are the consequences?

- Lack of iron causes anemia, a syndrome that is caused by malnutrition.
- In Cambodia, iron deficiency anemia is a major health problem for some groups:
 - 55% of children aged from 6 months to 5 years old are anemic.
 - 44% of women aged 15 to 29 years old are anemic.
- Other problems associated with iron deficiency include:
 - Decreased immunity and reduced resistance to disease.
 - Decreased work performance

What foods are rich in iron?

Animal foods are the most important source because it is easier for your body to absorb iron

- Lean meats, particularly beef
- Liver, blood and internal organs of animals
- Fish and shellfish (shrimp, mussels)
- Eggs









Some plant foods are also good sources of iron

- Whole grain cereals such as maize
- Legumes such as beans, lentils, peas and groundnuts





- Dark green leafy vegetables such as morning glory, amaranth, kale, spinach and pumpkin leaves
- Watermelon



All images from: FAO/NNP Nutrition Handbook for the Family



What are the needs for iron-rich foods of different people in your family?

At birth, infants have iron already stored in their bodies. This supply of iron is used up over the first 6 months of life.

- Breast milk is the best source of iron for infants under the age of 6 months. There is very little iron in breast milk but it is easily absorbed by the body.
- After 6 months, it is important to add iron-rich foods to the baby's diet. For instance, add small amounts of cooked red meat, fish or dark green leafy vegetables to bobor.



Women and older girls

Women and older girls need more iron-rich foods than men because their bodies lose iron during menstruation.

- Girls and women aged from 11 to 55 years need 18mg of iron per day. .
- Older women over 55 years of age need only 10mg per day.
- 85g cooked lean beef provides 5mg iron; 85g cooked chicken legs provides 3mg iron; 50g cooked beef liver provides 9mg iron; 250ml cooked dark green leafy vegetables provide 4mg iron; 1 large slice of watermelon provides 2mg iron.



Teenage boys

Teenage boys also need extra iron because they are growing rapidly at this age.

- Teenage boys aged from 11 to 18 years need 18mg of iron per day.
- Adult men over 19 years of age need only 10mg per day.
- 85g cooked lean beef provides 5mg iron; 85g cooked chicken legs provides 3mg iron; 50g cooked beef liver provides 9mg iron; 250ml cooked dark green leafy vegetables provide 4mg iron; 1 large slice of watermelon provides 2mg iron.







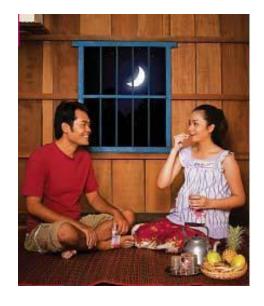
Pregnant and post-partum women

Pregnant women need much higher levels of iron in their diet – up to 27mg per day.

Good iron intake is also important for post-partum women to avoid health problems caused by iron deficiency anemia.

In Cambodia, health centers provide these women with iron/folic acid (IFA) tablets:

- During pregnancy, women are advised to take a program of 90 IFA tablets.
- Post-partum women are advised to take 1 IFA tablet for 6 weeks after delivery.
- The use of IFA tablets should always be supervised by your local health center.



How to prepare meat and vegetables to retain iron

- Stir-frying meats and vegetables is a healthy cooking method because foods are cooked without water, in a small amount of oil and only for a few minutes at a high heat. Stir-frying sears the outside of the meat or vegetables. This locks the nutrients inside.
- When stir-frying, meat and vegetables should be thinly sliced in order to cook faster.
- Cook with cast iron pots to add more iron to your meals.
- Harvest ripe vegetables on the day you want to eat them. Ripe vegetables offer the maximum amounts of key vitamins, minerals and other nutrients.
- Harvest vegetables in the early morning when it is still cool. This will minimize nutrient loss.
- Many vegetables lose nutrients rapidly. For example, dark green leafy vegetables that are a good source of iron can lose up to 80% of their nutrients within 2 days of being harvested.
- The best way to cook vegetables is to steam them. The hot steam locks in nutrients. Also, by avoiding contact with water, vitamins and minerals cannot leach out during cooking.
- If you cook vegetables in water, use only a small amount of boiling water and cook with the lid on for the shortest time possible.
- Do not throw away the water you use to cook vegetables. After cooking, the water is rich in nutrients. Use it to make sauces or add it to soups.

Vitamin C helps your body absorb iron

When you eat food rich in iron like fish, red meat, eggs or legumes, you also need to eat foods with Vitamin C to help your body absorb the iron. For example, if you serve a dark green leafy vegetable like morning glory or

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kale, you are serving a dish rich in Vitamin C. You can also use lemon or tamarind as an ingredient in your meal, or you can eat pineapple, mango or other fruits rich in Vitamin C after the meal.